CHAPTER V

CONCLUSION AND RECOMMENDATION

Annona squamosa Linn., a wellknown economic plant, its phytochemical study is reported for the first time in Thailand. The outcome of the study corresponds to the previous studies. An oxoaporphine "Lanuginosine" was isolated from the leaves of A. *squamosa* Linn. This alkaloid is present together with at least six alkaloids when examined on thin layer chromatography.

The priority recommendation is the isolation and identification of the remaining alkaloids. The compounds obtained from A. *squamosa* Linn. are biogenetic interest. Isolation of michelalbine, anonaine, roemerine, along with the corresponding oxoaporphine liriodenine and xylopine with the corresponding oxoaporphine lanuginosine lead to further recommendation on biosynthetic study of oxoaporphine from aporphine alkaloids. In addition, the occurrence of the same aporphine and oxoaporphine alkaloids eg. anonaine, xylopine, liriodenine and lanuginosine in *Xylopia brasiliensis* Sprenge. and A. *squamosa* Linn. suggests chemotaxonomic relationships between the species of the Annonaceae. Thus, it is one of the most interesting points recommended to continue research work concerning chemotaxonomic relationship of A. *squamosa* Linn. alkaloids and other species.

Moreover, Ethnopharmacological studies to ascertain whether the various folk medicinal uses known are supported by the pharmacological activities of the constituents is highly recommended. Especially, the pharmacological action of lanuginosine, which has similar structure to liriodenine (the known cytotoxic inhibitor *in vitro*) is worth-investigation.